**STATEMENT OF MICHAEL SOUKUP, ASSOCIATE DIRECTOR FOR NATURAL RESOURCE STEWARDSHIP AND SCIENCE, NATIONAL PARK SERVICE, DEPARTMENT OF THE INTERIOR, BEFORE THE SUBCOMMITTEE ON NATIONAL PARKS OF THE SENATE COMMITTEE ON ENERGY AND NATURAL RESOURCES, CONCERNING OVERSIGHT OF THE PROBLEM OF INVASIVE SPECIES ON PARKLANDS.**

**August 9, 2005**

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Mr. Chairman, thank you for the opportunity to provide an update to the Committee on the accomplishments of the National Park Service in battling invasive species on parklands.

Invasive species proliferation is considered one of the greatest threats to our natural and cultural heritage. Invasive species encroachment is implicated in the listing of 42% of all species protected by the Endangered Species Act. Invasive plants are estimated to cause more than $20 billion per year in economic damages and affect millions of acres of public and private lands across the country. Of the 83 million acres managed by the National Park Service, 2.6 million acres are infested by invasive plants. Examples of invasive animal species plaguing the parks include feral pigs and goats, hemlock woolly adelgid insect, and New Zealand mudsnail.

Recognizing that invasive species cross geographic and jurisdictional boundaries, collaborative efforts among Federal, State, and local entities and willing private landowners can be highly effective in managing a shared problem. For the National Park Service, one of the barriers to such collaboration is the lack of the authority to expend

Federal funds for work outside of lands it manages where there is a clear and direct benefit to park natural resources. According to a recent General Accounting Office (GAO) report from February 2005, of the four major land management agencies examined by the GAO, the National Park Service was the only Federal agency that did not have this authority. This lack of consistency among Federal agencies is an impediment to effective collaboration and cooperation among potential partners to manage invasive species, especially with willing adjacent landowners.

To address this problem, the Administration recently has transmitted to Congress a draft legislative proposal entitled, "the Natural Resource Protection Cooperative Agreement Act." The proposal would provide the Secretary the authority to protect park resources through collaborative efforts on lands inside or outside of National Park System units. The legislative proposal would ensure the protection of private property rights by only authorizing collaborations with willing private landowners.

With the continual arrival of new invaders to Hawaii, the problem of non-native species occupying park areas only increases. For example, the Coqui comun frogs, which reach cacophonous densities estimated to be between 10,000 and 40,000 per acre, are beginning to appear in Hawaii Volcanoes National Park. Coqui comun will decimate forest invertebrate fauna and significantly alter nutrient cycling in Hawaiian forests, while also degrading the natural quiet of the park and impacting the tourist industry. A recently arrived rust, Metrosideros polymorpha, found on ohia trees in plant nurseries on Oahu

and Maui has the potential to seriously harm this most abundant native tree species and other key species in native ecosystems in Hawaii.

Invasive marine algae are rapidly invading the Hawaiian Islands and other Pacific Island groups. These invaders are both financially and ecologically devastating. They can overgrow and kill corals, devastate coral habitat, alter ecosystem processes, and significantly impact the health and biodiversity of coral reef communities. With Hawaii's tourism industry so dependent on marine resources, these impacts can result in major financial losses.

The Park Service is embarking on a two-year project to rapidly assess the threat from invasive marine plants within and adjacent to National Parks in Hawaii, Guam, Saipan, and American Samoa. Given the known distribution of invasive marine plants in shallow water habitats of the Hawaiian Islands, we must document these plant distributions and abundance in the Pacific Island Parks before they cause damage to marine resources and native or endemic species are lost. One area that has been invaded is Kaloko fishpond, located in Kaloko-Honokohau National Historical Park on the Kona coast of Hawaii. The historic fishpond is an 11-acre, spring-fed, natural embayment enclosed by a man-made stone wall. Red alga has entered the pond and currently covers about a third of the bottom. In addition to restoring this important native Hawaiian historic site, our concern is that the invasive algae will spread to the reef adjacent to the fishpond and throughout the Kona coastline. In cooperation with University of Hawaii, the Park Service is conducting a removal project to evaluate methods to diminish and control this invasion

and prevent its spread. These methods include biological control using herbivorous fish, manual removal, shading, and re-cropping.

The National Park Service has been a pioneer in combating threats to resources posed by invasive species. This work began with the grassroots efforts of staff in many parks; a few examples include the removal of feral pigs at Great Smoky Mountains National Park, burros at Grand Canyon National Park and purple loosestrife at Acadia National Park. As more and more invasives have encroached on parklands over the last century, the National Park Service has expanded its efforts to develop more complex and aggressive programs and policies to prevent, control and manage invasive species. For example, at Yellowstone National Park, staff has removed thousands of nonnative lake trout since 2000 because they were displacing native cutthroat trout, an important food source for grizzly bears. In New Mexico, invasive African oryx grew to a herd numbering more than 4,000 in White Sands National Monument. Because of resource damage, the park initiated a comprehensive control program in 1999 and successfully removed all oryx from the park. At St. Croix National Scenic Riverway in Wisconsin and Minnesota, a boat inspection program has been initiated with the State of Minnesota and Federal agencies to prevent the spread of invasive aquatic plants and zebra mussels into the Riverway. This prevention program was initiated to stop the introduction of zebra mussels that were outcompeting threatened and endangered native mussels. By aggressively taking steps to eliminate or prevent establishment of invasive species, native populations of animal and plant species can thrive on parklands.

As part of the National Park Service's Natural Resource Challenge, a new management strategy was created for addressing invasive species in parks. Modeled after the approach used in wildland fire fighting, field-based Exotic Plant Management Teams (EPMTs) provide highly trained, mobile strike forces of plant management specialists who assist parks in the identification, treatment, control, restoration, and monitoring of areas infested with invasive plants. There are now 16 teams covering 209 parks nationwide. This successful model has now been adopted by the U.S. Fish and Wildlife Service and the Student Conservation Association as well. The success of the EPMTs derives from its ability to adapt to local conditions and needs while still serving multiple parks within a broad geographic area.

The Department of the Interior's Cooperative Conservation Initiative (CCI) is an innovative and collaborative program through which land management agencies partner with landowners and communities to battle invasive species and restore natural areas. During 2003 – 2004, the National Park Service has received about $6 million dollars for invasive species work, primarily weed management efforts. Since 2000, the EPMTs have entered into over 40 different cooperative efforts throughout the United States with more than $4 million dollars in matching support from public and private sources. In 2004 alone, volunteers contributed over 4,000 hours to our weed management efforts. In addition, we anticipate that the Noxious Weed Act recently passed by Congress will help provide financial and technical support to our State partners in controlling weeds. Finally, through a new Student Conservation Association partnership, student teams are

being fielded to build our capacity and to train new invasive species management professionals to work beyond our boundaries.

As a result of over 20 years of active ecosystem management starting with fencing and feral animal control, followed by invasive plant control and rare plant stabilization, spectacular recovery of native vegetation and associated fauna have occurred at Haleakala National Park, protecting one of the richest and most ecologically intact ecosystems within the National Park System. Thirteen endangered plants and five endangered birds are harbored on parklands along with dozens of rare plants and a diverse array of native arthropods. However, many non-native species threaten to invade native habitats at the park potentially reversing this recovery. For example, miconia, an invasive tree, feared as the "green cancer", would transform arguably the best remaining Hawaiian rainforest, and the only remaining home of two critically endangered forest birds, the Maui Parrotbill and Akohekohe, into the green and purple monoculture that has become the fate of the forests in Tahiti. Pampas grass and silk oak also threaten to convert native grasslands and forests into single invasive species stands. So far these three species have been eradicated from parklands through a joint partnership effort. However, reinvasion from adjacent lands remains a threat.

Invasive animals are perhaps an even more imminent threat to parks in Hawaii. For example, the veiled chameleon has escaped as a result of the illegal pet trade and is considered by island biologists to have the potential for decimating native bird

populations similar to what the brown tree snake has done on Guam. Much more work needs to be done to keep these and other invasives out of parks.

As mentioned above, collaborative efforts are critical in managing the problem of invasive species. To this end, the National Park Service has been an active member on many partnership committees. At the national level, the National Park Service participates in a number of interagency partnerships and cooperative efforts of the National Invasive Species Council (NISC), including the control of invasive plants such as tamarisk and leafy spurge in the western United States. NISC is an inter-departmental Council charged with coordinating Federal invasive species programs and is co-chaired by Secretary Norton. The National Park Service participates in the taxa-focused Federal coordinating organizations for invasive species, the Federal Interagency Committee for the Management of Noxious and Exotic Weeds (FICMNEW), the Federal Interagency Committee on Invasive Terrestrial Animals and Pathogens (ITAP), and was recently invited to be a Federal member of the Aquatic Nuisance Species Task Force. Participation in these national efforts provides the National Park Service with opportunities to draw on broad expertise, identify shared priorities, pool resources, and work collaboratively on invasive species issues of national significance.

The National Park Service also works actively with partners at the regional and local levels. For example, we are a member of the Maui Invasive Species Committee, an informal partnership of private, county, State and Federal agencies and individuals that has for the last three years worked to control invasive species through $1.6 million

dollars in county and State grants. A similar effort led by the Big Island Invasive Species Committee is working to coordinate invasive management actions on the island.

I would like to highlight an example of a very successful public-private partnership, which is occurring here at Hawaii Volcanoes National Park. The Olaa Kilauea Partnership on the island of Hawaii is a cooperative land management effort involving State and Federal entities and willing private landowners. The goals of the partnership are to enhance the long-term survival of native ecosystems and manage 420,000 acres across multiple ownership boundaries. Management and research are currently focused on removing or reducing impacts from feral animals such as pigs, invasive plants and non-native predators, restoring native habitat and endangered species, and providing education and work training in fencing, native plant horticulture and other conservation work to Kulani Correctional Facility inmates. Other partners include the Puu Makaala Natural Area Reserve, the Kamehameha Schools, the U.S. Fish and Wildlife Service, the USGS Biological Resources Division, the USDA Forest Service, and the Nature Conservancy. The Partnership has jointly fenced 14,100 acres on State and private lands and eliminated the feral pig population from 9,800 acres, while controlling feral pigs in an additional 4,300 acres.

The Partnership also offers valuable educational and cultural benefits by providing staff and field sites for hands-on environmental educational activities for teacher workshops and student programs. The private landowner involved in the Partnership plans to restore

the ranch adjacent to the park and use the entire area for conservation, cultural enrichment and education.

The most cost-effective and successful strategy for battling invasive species is preventing them from ever entering our national parks. New and innovative programs are being established in a handful of parks to institutionalize prevention programs. In cases where this is not possible, the sooner new introductions are detected and addressed the greater the likelihood of eradication. The National Park Service's Inventory and Monitoring (I&M) Program networks are helping parks develop monitoring programs for the detection of new invasions so a quick response can ultimately remove the threat *before* it becomes unmanageable. The information is also used by EMPTs for identifying treatment areas and coordinating control projects with parks.

The battle to manage the widely recognized and increasing problem of invasive species in our national parks has brought together a broad-based coalition of public and private agencies, citizens and organizations with the shared goal of protecting our national heritage. The Department's commitment to take aggressive action to prevent and manage invasive species is evident by the support of programs such as the Natural Resource Challenge and the Cooperative Conservation Initiative.

We applaud your efforts Mr. Chairman to bring recognition to this growing problem of invasive species on parklands across the Nation. This concludes my statement and I will be happy to answer any questions that you or members of the Committee may have.